

DIGITAL POTENTIOMETER INCLUDING OUTPUT BUFFER

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Abstract

A digital potentiometer is disclosed that includes first, second, and third signal terminals. A chain of series-connected impedance elements with multiple tap points is connected between the first and second signal terminals. A plurality of first switching devices are each connected to a respective one of the multiple tap points and to an internal wiper node. A configurable output stage is connected between the internal wiper node and the third signal terminal. The configurable output stage includes a buffer and a second switching device. The second switching device is operable to bypass the buffer. A switching circuit controls switching of the first switching devices. The switching circuit includes a Gray-code counter, a Gray-code decoder, and a make-before-break circuit that controls the timing of the switching of the wiper switches.